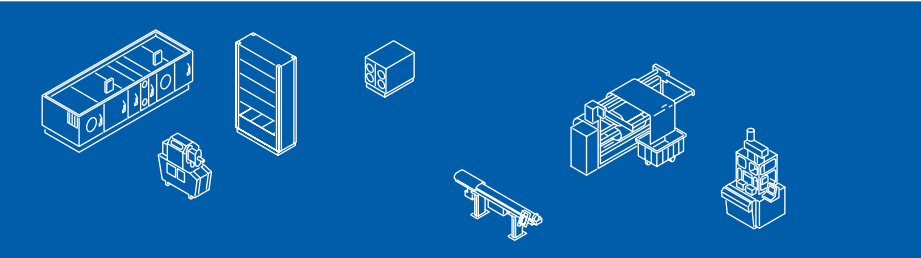**Control systems
and components
in perfection**
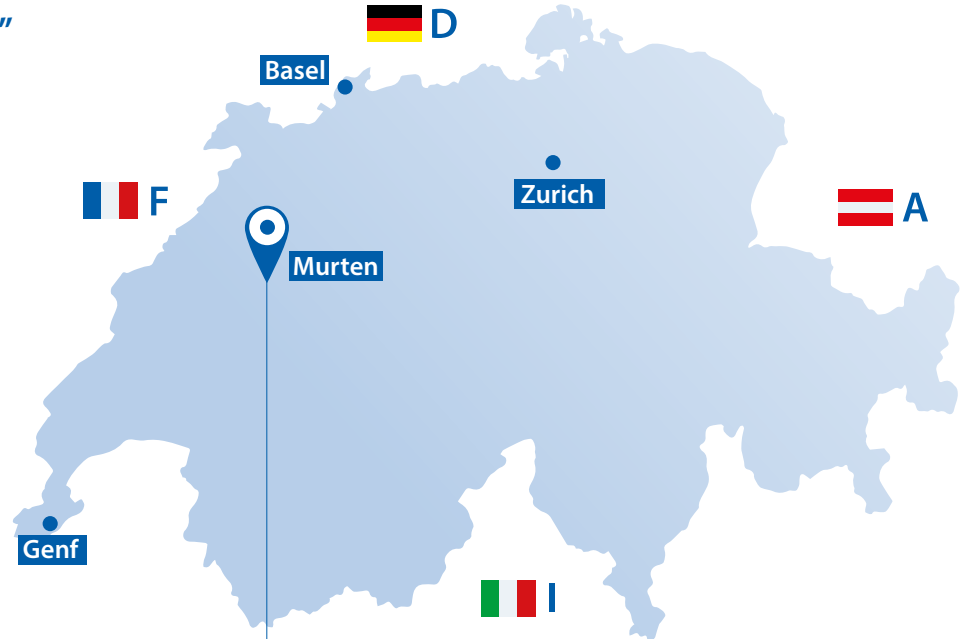
Engineering
Automation
Monitoring

Control systems "Swiss made"

Saia-Burgess Controls AG, or SBC, is based in a bilingual (German and French) part of western Switzerland – the locality which is home to companies with a global reputation and to leading schools and universities in the field of technology. Saia Burgess Controls is a wholly-owned subsidiary of Honeywell International Inc. and operates according to the "bottom up" principle: the needs of the grassroots are defined and integrated into the development and manufacturing process.

The company has developed and marketed electronic components and measurement and control systems since 1950. The products are distinguished by an extremely long service life. They are used in heating, ventilation and climate control, energy management and water systems. A further important pillar of the company is OEM production.

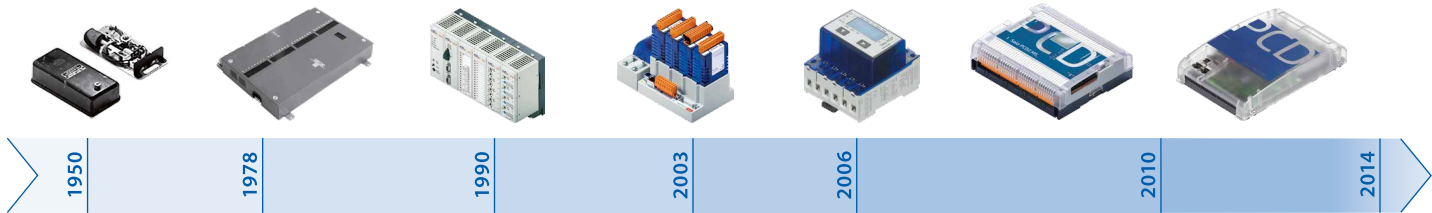SBC products are always fit for purpose and are guarantors of technological progress.

D

Basel

Zurich

F

A

Murten

Genf

I

sbc
SAIA BURGESS CONTROLS

Key corporate data:
▶ 70 million Euro annual sales
▶ 340 employees
▶ 2 million I/0 points per year
▶ 40,000 CPUs per year
▶ 700,000 small devices per year

Swiss made

Our mission:

Development, production and sale of industrial-grade electronic components and systems for control/measurement engineering.

1950	1978	1990	2003	2006	2010	2014

In the early days, Saia Burgess Controls manufactured mainly electronic timers. The spectrum of use extended from house installations to machine technology.

At the end of the seventies, Saia Burgess Controls became a pioneer in the field of programmable logic controllers (PLCs), known and used long-term under the Saia PCD® brand name. In parallel with the component business, Saia Burgess Controls grew to become a supplier of measurement and control technology systems.

The year 2006 saw the start of the product line for fully integrated bus compatible electronic energy meters.

S Web

In the same year, Saia Burgess Controls launched the world's first completely web-based touch-panel for automation.

In 2010, with the complete redesign of the Saia PCD1, the smallest device series joined the Saia PCD3 and Saia PCD2 in being fully modernised. The 3rd generation of Saia PCD® control devices is now complete. This is characterised by the following equation:

Saia PCD® = PLC + IT + Web

Seamless integration of world renowned open technologies for web and IT on freely programmable, industrial electronics with the same quality and life cycle as the robust, industrial PLC.

Reliability and sustainability as corporate culture

More than 40 years' experience with PLC technology and PLC quality has left its mark on our corporate culture. Our customer relationships are designed for the long term and are based on trust and continuity. Healthy, organic growth is more important to us than spectacular leaps in growth arising from company acquisitions. Our focus is on identifying customer needs, implementing them on the highest level, and providing lasting support.

Over 85% of our turnover is generated in Europe.

Factory 1:
Controller and Interfaces Business Area, sales and commercial field

Factory 2:
SMD Production and Small Devices Business Area. Solar plant with 11 kWp for "green" air conditioning

From bid phase to production and far beyond: **All in-house**

Product Development

Software, firmware and hardware developed in-house

Guaranteed product life cycle and compatibility for over 15 years

Faster and more reliable production of custom orders

Production

Two modern SMD lines with 560 feeder positions in the factory at Murten (Switzerland)

Effective mounting capacity of 80,000 components per hour

Selective soldering machine for processing densely populated, critical boards

ICT, AOI and boundary scan test methods

Assembly

Production and assembly based on the "lean" principle

Direct final assembly in work cells downstream of the SMD line, no intermediate storage

A machine-assembled board becomes a finished product ready for dispatch, including packaging and documentation.

Logistics

▶ 75,000 order items
▶ 12,000 packages
▶ 1,000 sales items kept in stock
▶ Delivery reliability: >96%
▶ Delivery time: 80% of items within 48 hours

Training and Support

The aim is to achieve a high level of autonomy and efficiency for our customers.

Product support and training centres at every sales support location

Practical basic and advanced training facilities at the factory in Switzerland

Value and culture
of a PLC company

When they use our products customers gain value added in the form of sustainable earnings. For this reason, we develop products with a long life cycle of problem-free, reliable operation. Installed products can be adapted to changing needs at any time. Investments made by the customer are lasting and not constantly subject to incompatibilities or forced and unwanted innovations.

This is why we develop PLC-based technology, with its sustained customer benefit and ease of upgrade. For more than 50 years, our company has remained true to these values.

Since application settings all too often fail to behave in accordance with the standards, we have made Saia PCD1, 2, 3 control technology more robust against interference than the CE standard requires. We set high standards for ourselves. This gives our customers greater security and peace of mind

Alongside the strict IEC 61131-2 PLC hardware standard, Saia PCD® control technology also meets the stringent requirements of various testing authorities for marine engineering.
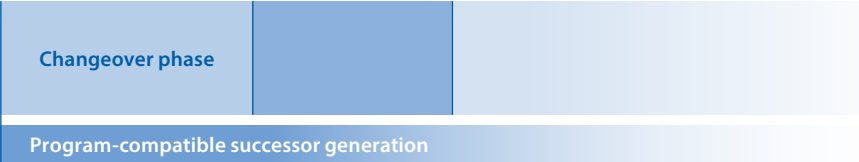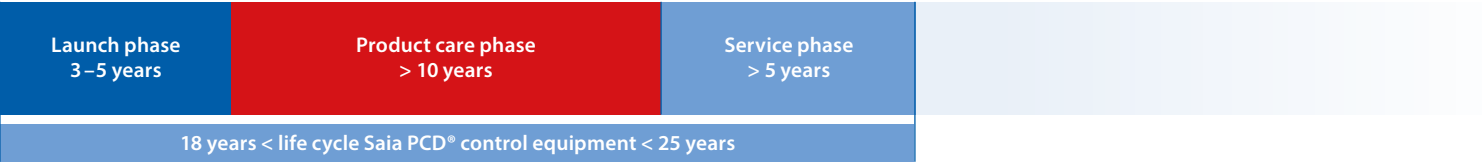
IEC EN 61131-2
This standard defines in 150 pages how electronic items should be developed and produced to satisfy PLC quality requirements. It ensures, among other things, that service is possible even without specialists. Look out for the extension "-2". Many suppliers work only to PLC standard 61131-3. But that standard only defines the programming method type, regardless of the hardware/design quality. In addition, standard 61131-3 does not specify the portability of application software from one device series to another, nor from one hardware version to the next.

Life cycle of Saia PCD® control equipment

Launch phase 3–5 years	Product care phase > 10 years	Service phase > 5 years
18 years < life cycle Saia PCD® control equipment < 25 years		

Changeover phase	
Program-compatible successor generation	

Our Saia PCD® technology
Your installation

Control and measurement electronics should have the same life cycle as the installation plant technology. During this cycle the technology must remain adaptable and expandable at all times; it should therefore be modular and in PLC quality.

The compatibility and free portability of system/machine software is safeguarded over an entire product generation of 18 to 25 years. This can only be achieved if we develop all the engineering software ourselves, and systematically use "interpreted program code". This approach requires rather more hardware resources, but allows user software to be portable across several controller generations.
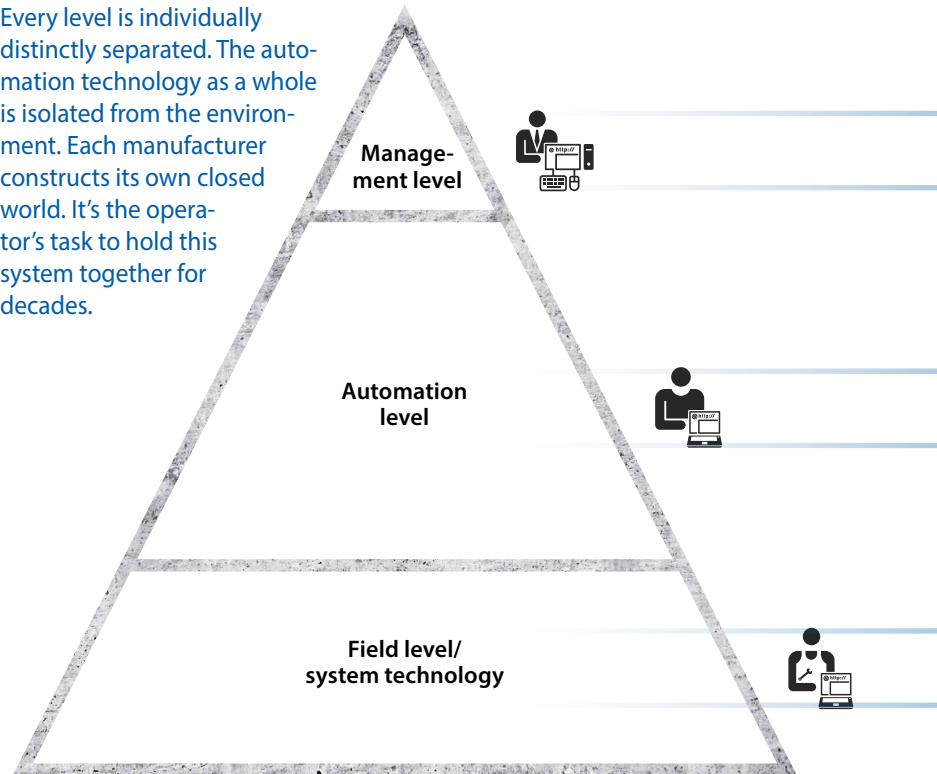
Paradigm shift in automation

Tomorrow's challenges in automation are shortages of staff, finance and raw material reserves. To meet these challenges, we have consistently avoided the use of proprietary, exclusionary technologies since the year 2000.
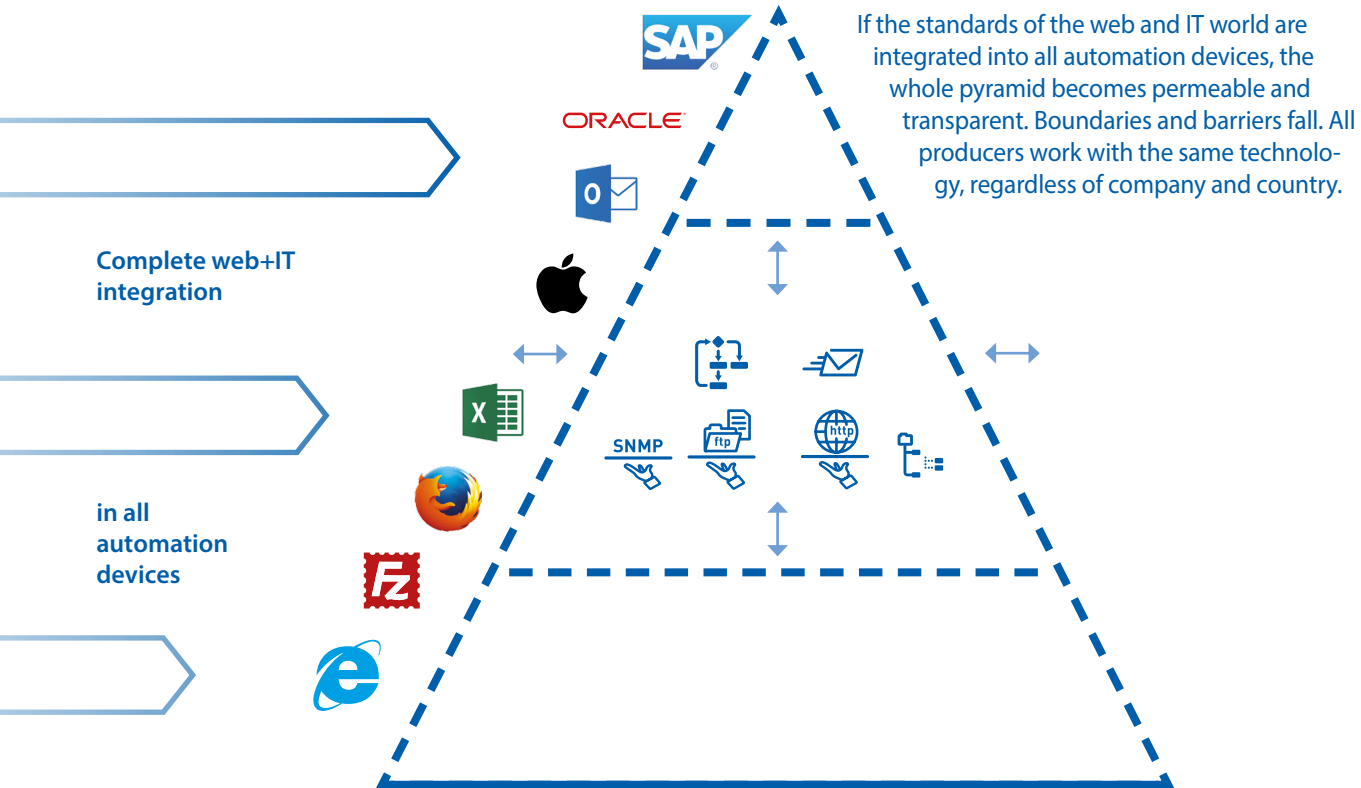
We bring to automation only those proven technologies that have worldwide acceptance and are well understood. Our core competency lies in the integration of these new technologies within industrial grade electronic devices with a long life cycle. And we also make them easy for non-specialists to use safely.
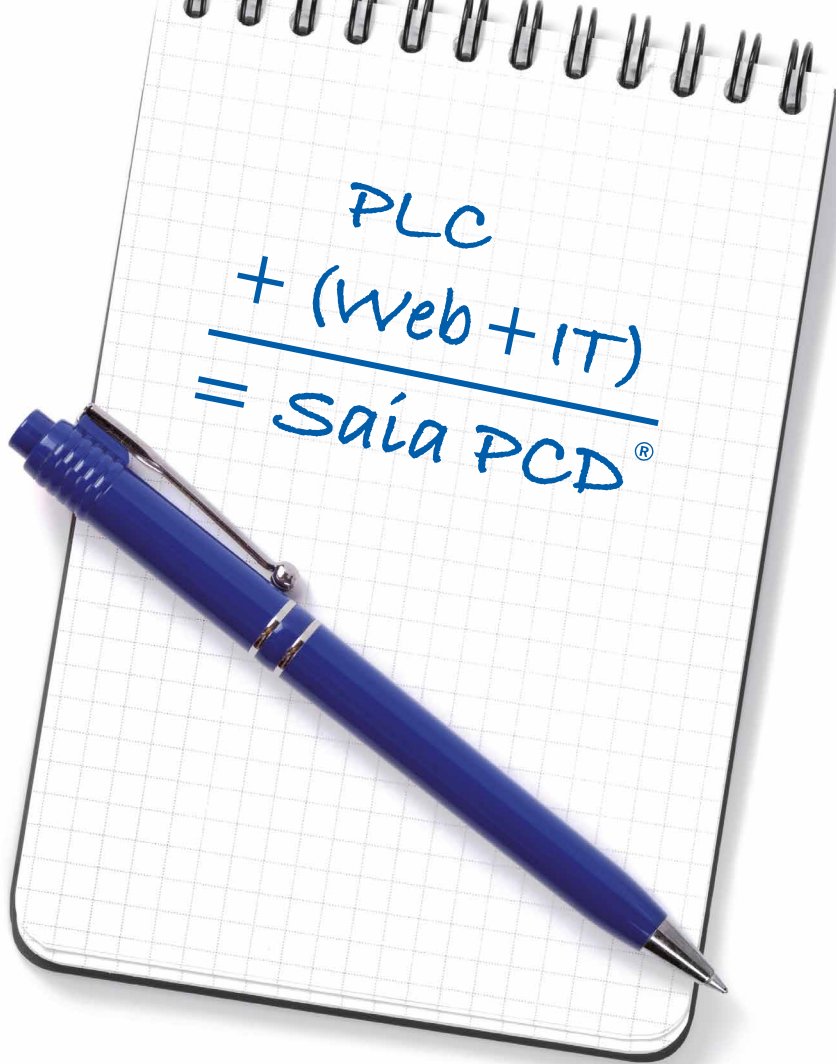
Classic automation model

Every level is individually distinctly separated. The automation technology as a whole is isolated from the environment. Each manufacturer constructs its own closed world. It's the operator's task to hold this system together for decades.

Management level

Automation level

Field level/ system technology

Lean automation model

If the standards of the web and IT world are integrated into all automation devices, the whole pyramid becomes permeable and transparent. Boundaries and barriers fall. All producers work with the same technology, regardless of company and country.

Complete web+IT integration

in all automation devices

SNMP   ftp   http

$$PLC + \frac{(Web + IT)}{Saia\ PCD^®}$$
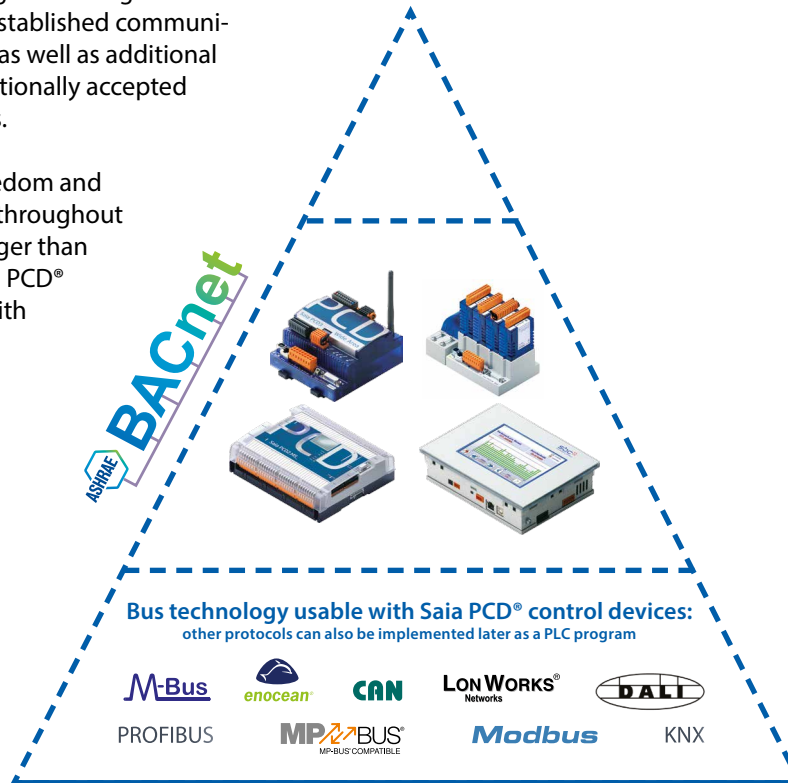
Base equation for lean automation

Saia PCD® System – lean automation pyramid

▸ The Saia PCD® System is characterised by its open technology. This is in stark contrast to the old, monolithic, encapsulated world of "total integration", where everything had to be sourced from a single producer. Our technology stands for total transparency, combinability and openness. This applies not only between all levels in the automation pyramid, but also between the automation world and the real, operational user environment.

▸ To arrive at this technically ideal situation, all Saia PCD® control and measurement devices are equipped with comprehensive web+IT functions. These functions require no added hardware of any kind, but are an integral part of every controller.

Web, IT and established market standards

Saia PCD® products combine a multitude of technologies in a single device. They feature all established communication standards as well as additional open and internationally accepted web+IT functions.

The resulting freedom and flexibility persist throughout the life cycle (longer than 15 years) of a Saia PCD® device – in line with the motto: no risk, no limits.

BACnet
ASHRAE

Bus technology usable with Saia PCD® control devices:
other protocols can also be implemented later as a PLC program

M-Bus   enocean   CAN   LON WORKS® Networks   DALI

PROFIBUS   MP-BUS MP-BUS® COMPATIBLE   Modbus   KNX

Basic characteristic of Saia PCD®: USB and Ethernet on board as standard. USB is available for ease of service without high IP expenditure or loss of connection. In addition, 2 serial interfaces are always provided, expandable to a maximum of 12 serial connections.
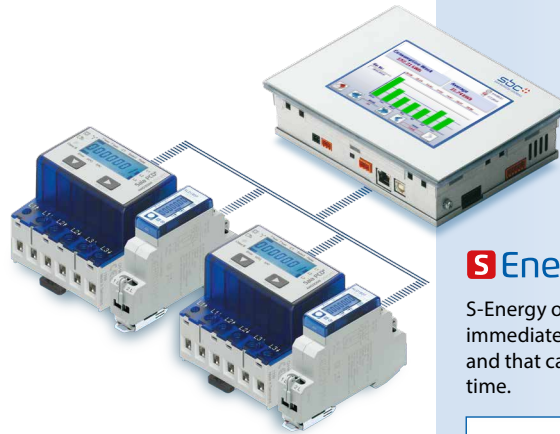
S Energy
Save energy
and drive down costs

Efficient use of resources makes sense and is necessary. For the energy conscious, the S-Energy system is not just an end in itself; it is also profitable.
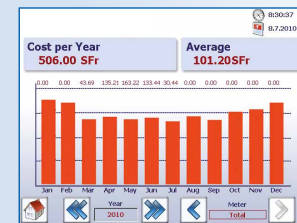
Starting with electrical energy, the system can capture, visualise and manage all possible types of consumption. S-Energy is a universal and reliable "monitoring and control" system on a modular PLC basis.

Web+IT technology results in "lean systems". These are economical to install and maintain.. The S-Energy system stands for a scalable and controllable bottom-up approach to achieve quickly visible effects. It is the "lean" alternative to the more costly top-down method.
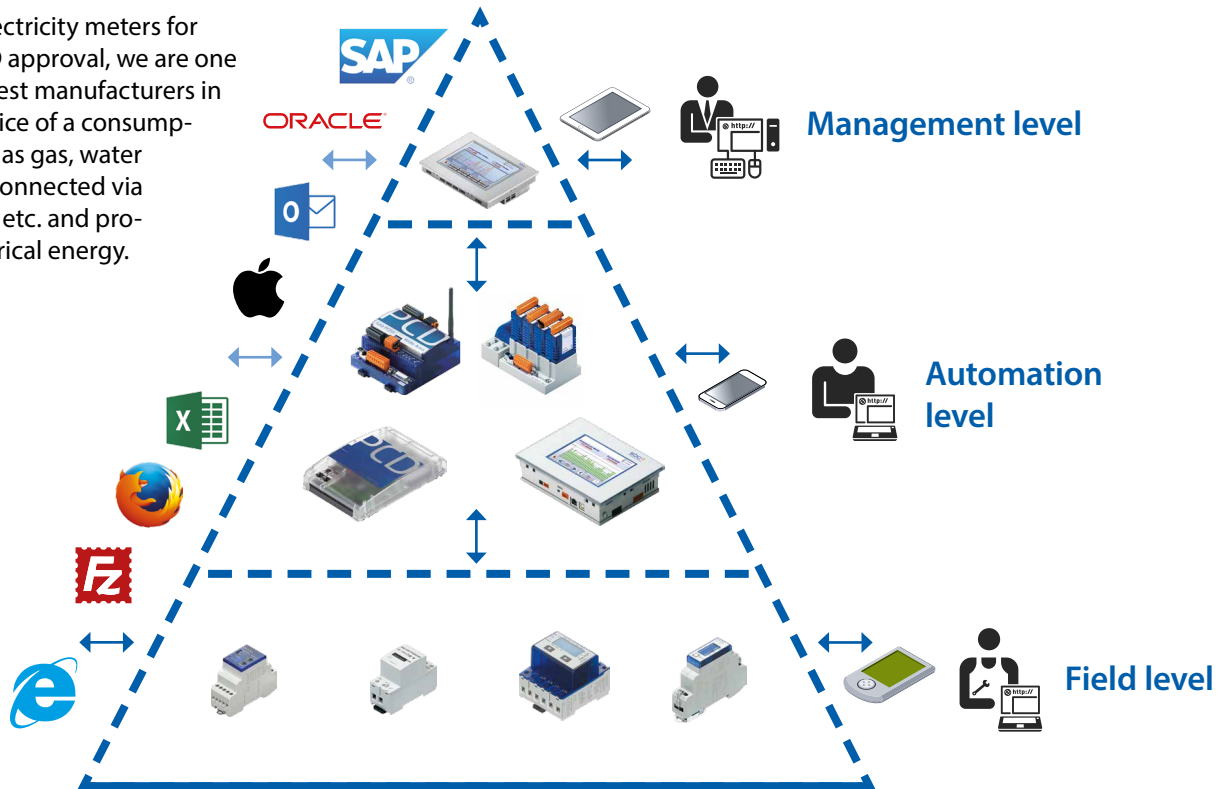

S Energy

S-Energy offers additional systems that support immediate, "out of the box" energy management and that can be adapted and expanded at any time.
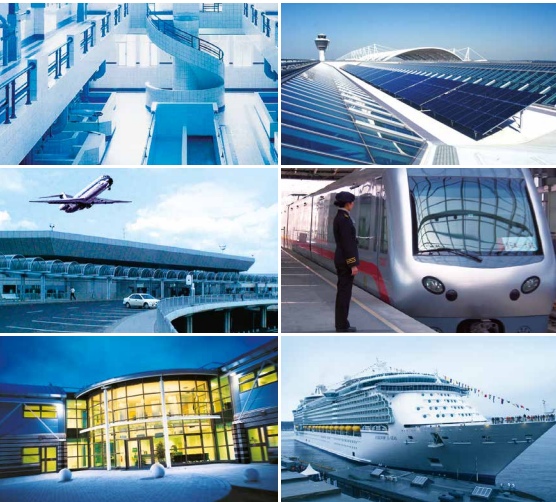
S Energy – when energy counts!

In the field of electricity meters for DIN-rail and MID approval, we are one of the three largest manufacturers in Europe. Any choice of a consumption meter, such as gas, water or heat, can be connected via M-Bus, Modbus, etc. and processed like electrical energy.

Management level

Automation level

Field level

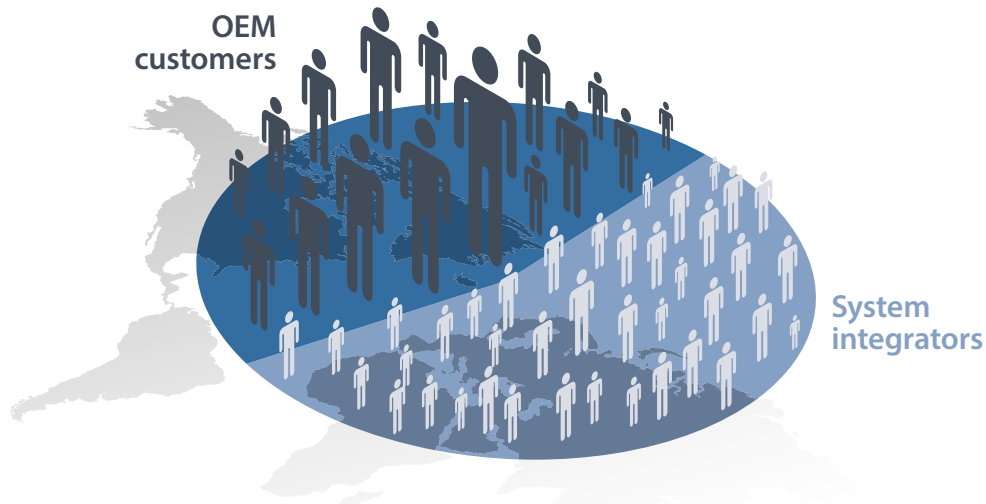## Our core competency: infrastructure automation

Infrastructure automation by Saia Burgess Controls closes a big gap in the market. This kind of automation covers commercial premises with all the necessary technical plant, ensuring the well-being of people and smooth operation of installed systems and machines.

In infrastructure automation one-off projects are also implemented; in the simplest case, just one central controller is used with a few single-room controllers. However, Saia PCD® systems are also implemented with several thousand control and measurement devices; for example to automate tunnels (e.g. Lötschberg), or the district heating system of an entire city (e.g. Bucharest), or the telecommunications network of a whole country (e.g. Deutsche Telekom).

Responsibility for project implementation lies with Saia PCD® system integrators. Over 1,000 engineering companies worldwide provide a high level of customer-oriented solution expertise. Eighty per cent of our turnover in infrastructure automation is achieved with system integrators who have between 3 and 30 employees.

OEM customers

System integrators

Our customer base

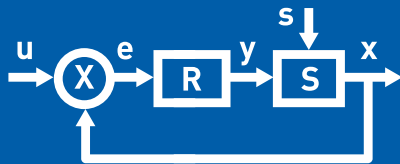The spread of our customers is a distinctive feature of our company.

More than 50% of our corporate turnover is achieved with "small" system integrators, who carry out infrastructure automation projects. At the other end of the scale, we also develop and manufacture products for well-known international companies in electrical automation. Midway between the two are the production machine builders. Many of these supply HeaVAC and "energy" machines for infrastructure.
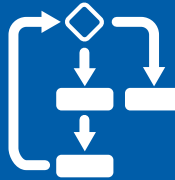
In process technology, Saia PCD® controllers are found in machines for stoneworking, textiles, printing, assembly, etc.

In the case of machine controllers, we have no specific industry focus but rather a customer focus. Target customers are manufacturers of production machines who value an economical and innovative controller technology that offers them ample room for their own added value and product differentiation. We provide our customers with individual adaptations to achieve maximum efficiency for their needs.

**Instrumentation/
Measurement**

Control

**Operation/
management**

Saia-Burgess Controls AG

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